

What is claimed is:

1. A method of testing the ESD performance of an IC device, comprising probing the device with a laser beam, and monitoring the amount of light reflected from the device.
2. A method of Claim 1, wherein a laser beam is used to probe the IC device.
3. A method of Claim 2, wherein the energy of the laser beam corresponds substantially to the bandgap of the substrate of the device.
4. A method of Claim 3, wherein the substrate is silicon and the energy of the laser beam is about 1.1 eV.
5. A method of Claim 3, wherein the diffusions of the IC device are probed with the laser beam.
- 10 6. A method of Claim 5, wherein the device is probed through the back of the device.
7. A method of Claim 6, wherein the diffusions of I/O cells are probed to determine how much light is absorbed and how much light is reflected by the diffusions.
8. A method of Claim 5, wherein several samples are taken of each probed location and the results averaged.
9. A method of Claim 1, wherein a mode-locked laser is used to probe the IC device.
10. A method of Claim 9, wherein a continuous wave laser is used in addition to the mode-locked laser, to provide an image of the IC device in order to facilitate the positioning of the beam of the mode-locked laser.

11. A method of Claim 10, wherein the mode-locked laser is positioned by a user.
12. A method of Claim 10, wherein the mode-locked laser is positioned automatically using image recognition.

13. A method of Claim 5, wherein power is supplied to the device during testing.
14. A method of Claim 13, wherein testing is performed on the device in a packaged form.
15. A method of Claim 13, wherein testing is performed on the device in a prepackaged form.
- 30 16. A method of Claim 15, wherein the device includes only some of its layers.

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17. A method of Claim 6, wherein a mode-locked laser is used to probe the IC device.
 18. A method of Claim 17, wherein a continuous wave laser is used in addition to the mode-locked laser, to provide an image of the IC device in order to facilitate the positioning of the beam of the mode-locked laser.
 19. A method of Claim 18, wherein the mode-locked laser is positioned by a user.
 20. A method of Claim 18, wherein the mode-locked laser is positioned automatically using image recognition.
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